Scleria lacustris: Aquatic and Wetland Sedge Invasive in Florida


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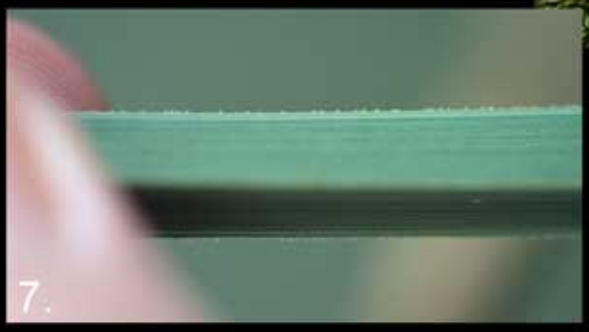
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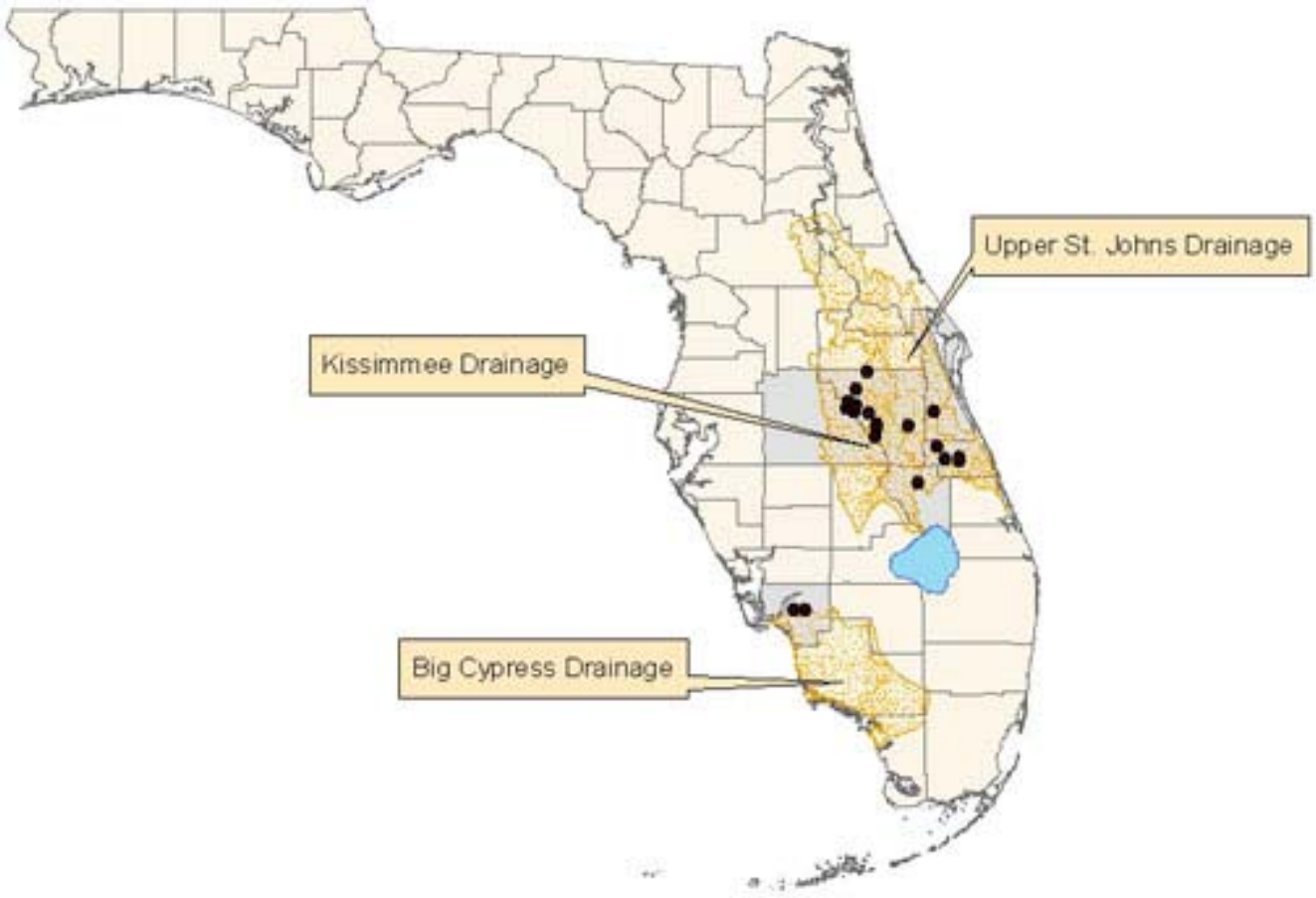
Field season 2001 found the nonindigenous sedge *Scleria lacustris* (Wright's nut-rush) spreading in conservation marshlands of central Florida.

Marshes in the headwaters of the St. Johns River in Brevard and Indian River counties, and in the Kissimmee River drainage in Polk, Osceola, and Okeechobee counties have experienced dense populations. Smaller, isolated colonies occur in Lee County, Big Cypress drainage. While scattered collections have been made in Florida over the past thirteen years, *Scleria lacustris* has become frequent only within the last two years.

Freshwater marshes characterized by seasonal water level fluctuation seem most vulnerable to invasion by *Scleria lacustris*. Susceptible plant communities include maidencane and flag marshes. Seedlings of *Scleria lacustris* emerge and become established late in the spring dry season when marshes dry down. Juvenile plants adapt readily to the influx of water during the rainy summer months. As late summer water levels reach 1.5 - 3 ft. deep, emergent plants mature to heights of 6 ft. In autumn, *Scleria lacustris* lodges in hordes across the standing water (Fig. 8).

Scleria lacustris is rare in its native range - the African and American tropics. Its source of introduction to Florida is unknown, however ducks and airboats are suspected to aid in dispersal of the shiny nutlets. Nutlets may also float through drainage systems, leaving vast marshes of southern Florida at risk.



November 2001

Identification Tips for *Scleria lacustris*:

- **Nutlets** – Oval to elliptic and somewhat triangular in outline. White to mottled gray, hard, porcelain-like nutlets contain a single seed. Nutlets mature on heavy branching heads September to December (Fig. 5). During winter nutlets can be found under a mulch of dry stalks (Fig. 1). Vegetative portions of plants do not over-winter or spread, however nutlets ensure seed banks for reoccurrence

- **Seedlings** - Appear April to June, when the substrate is dry. The nutlet remaining attached to the seedling roots lends positive identification (Fig. 2.).

- **Roots** – Dark red, stout and shallowly anchored in the substrate. Stems also develop fibrous floating roots where nodes are submersed (Fig. 3).

- **Stems** - As thick as 1 inch at the base and sharply three angled throughout. Solitary in aquatic conditions with thick spongy bases on stems emerging upright until maturity (Fig. 4). Dry land plants are smaller in stature (2 - 5 ft.) and develop thinner often multiple stems (up to 5 - 7). Stems are streaked with red, especially at the base.

- **Leaves** – Pleated and wide to 1 inch broad, long and tapering to a point, smooth and shiny throughout. Hazardous prickles along the leaf and stem margins impart a deep, slicing wound when handled (Fig. 7).

- **Flowers** - Displayed August to September on bisexual spikelets spirally to alternately arranged on branching inflorescences (flowers have matured to nutlets in Fig. 6).

Report Occurrences: *Colette_Jacono@usgs.gov* or phone *352.378.8181 ext. 315*.

Further Information: Jacono, C.C. 2001. *Scleria lacustris* (Cyperaceae), an aquatic and wetland sedge introduced to Florida. Sida, Contributions to Botany 19(4), Nov/Dec. *In Press.*